Message

From: john.coleman [jcoleman@glifwc.org]

Sent: 4/19/2018 4:55:34 PM

To: Burdick, Melanie [Burdick.Melanie@epa.gov]
Subject: % of GLIFWC wetlands found to be wetlands

Attachments: 2017-12-19 Barr Analysis of 2017 Wetland Field Verification.pdf; 2017-08-06 GLIFWC Wetland area Polymet-

Minesite_fnl.pdf

Melanie,

My evaluation of the Dec. 19, 2017 Barr report:

The Barr report (attached) on from December 2017, shows that 24 of the 28 polygons visited by the Corps (85.7%) contained wetlands, although not all the area of each polygon was wetland. THE 28 SITES WERE A SAMPLE of the polygons we identified as potential <u>additional</u> wetlands. This suggests that using the Lidar technique we were right 85% of the time in identifying <u>new areas</u> that contained some wetland.

As another way of looking at it: of the 30.96 acres of area in the potential wetland polygons visited by the Corps/Barr, 19.76 acres were new wetlands (63.8%). This suggests, that using our technique, that of the acreage we identified as potential new wetland, 63.8% were actually new wetland acres.

The Barr report says the field work indicates that there are an additional 19.76 acres of wetland at the site. This is misleading.

There were an additional 19.76 acre of wetlands found at the Corps SAMPLE sites. Those sample sites made up only a small portion of the potential additional new wetlands we identified. The Corps SAMPLE (28 polygons) needs to be used to extrapolate to the site as a whole.

Based on the above percentages: 63.8% of the 366 acres of possible additional wetlands identified by GLIFWC (0.638X366 = 233.5 acres) are in fact additional wetland. This is 18% additional wetlands beyond what Polymet had previously identified.

The validity of extrapolating to the whole mine site depends on how the Corps selected the 30.96 acres as a subsample of potential new wetlands. Only the Corps can fill us in on if that represents a random sample, stratified random sample, or something else.

take care, john

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